

Table 1. Demographic characteristics of the study population	
Age (years)	65.0 ± 10.0
Gender	
Male	50 (50.0%)
Female	50 (50.0%)
Education (years)	12.0 ± 2.0
Marital status	
Married	40 (80.0%)
Single	10 (20.0%)
Occupation	
Retired	30 (60.0%)
Unemployed	20 (40.0%)
Income (USD/month)	1000.0 ± 500.0
Health status	
Good	30 (60.0%)
Poor	20 (40.0%)
Comorbidities	
Hypertension	15 (30.0%)
Diabetes	10 (20.0%)
Cholesterol	12 (24.0%)
Arthritis	8 (16.0%)
Other	5 (10.0%)
Medication	
Yes	25 (50.0%)
No	25 (50.0%)
Smoking status	
Smoker	10 (20.0%)
Non-smoker	40 (80.0%)
Alcohol consumption	
Yes	15 (30.0%)
No	35 (70.0%)

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The method of classifying a plurality of subjects in said plurality of categories according to their salience comprises

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uniform width and depth around the rotor, and wherein said plurality of sensing slots create a ¹¹²desired saliency.

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5 5. The method of claim 2, wherein the step of providing a plurality of sensing slots uniformly spaced around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots uniformly spaced around the rotor,
10 wherein each of said plurality of sensing slots has a uniform width around the rotor, wherein the depth of each of said plurality of sensing slots varies in a repeating manner around the rotor, and wherein said plurality of sensing slots create a desired saliency.

15 6. The method of claim 2, wherein the step of providing a ¹¹²plurality of sensing slots uniformly spaced around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of
20 sensing slots uniformly spaced around the rotor, wherein each of said plurality of sensing slots has a uniform depth around the rotor, wherein the width of each of said plurality of sensing slots varies in a repeating manner around the rotor, and wherein said
25 sensing slots create a ¹¹²desired saliency.

7. The method of claim 1, wherein the step of providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of
30 providing a plurality of sensing slots around the

rotor in a post-assembly step, wherein said plurality of sensing slots create a desired saliency.

5 8. The method of claim 1, wherein the step of providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots are coupled with a plurality of stator slots of a stator
10 to create a desired saliency.

9. A sensorless control electric machine drive comprising:

a stator having a plurality of stator slots; and

15 a rotor having a plurality of rotor sensing slots located along its outer periphery, wherein said plurality of stator slots and said plurality of rotor sensing slots are coupled to create a desired saliency.

20 10. The sensorless control electric machine drive of claim 9, wherein said plurality of rotor sensing slots are spaced uniformly around the outer periphery of said rotor.

25 11. The sensorless control electric machine drive of claim 9, wherein said plurality of rotor sensing slots are variably spaced in a repeating pattern around the outer periphery of said rotor.

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12. The sensorless control electric machine drive of claim 11, wherein said repeating pattern comprises a sinusoidal repeating pattern.

5 13. The sensorless control electric machine drive of claim 10, wherein the depth of said plurality of rotor sensing slots is varied in a repeating pattern around said rotor.

10 14. The sensorless control electric machine drive of claim 10, wherein the width of said plurality of rotor sensing slots is varied in a repeating pattern around said rotor.

15 15. The sensorless control electric machine drive of claim 10, wherein the sensorless control electric machine drive is selected from the group consisting of a sensorless control induction machine, a Lundell-type synchronous machine, a buried permanent magnet synchronous machine,²¹ and a surface permanent magnet synchronous machine.²⁰

20 16. A sensorless control electric machine drive comprising:

a stator having a plurality of stator slots; and

a rotor having a plurality of rotor sensing slots located along its outer periphery, wherein said plurality of rotor sensing slots create a desired saliency.

30 17. The sensorless control electric machine drive of claim 16, wherein said plurality of rotor sensing slots are spaced uniformly around the outer periphery of said rotor.

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18. The sensorless control electric machine drive of claim 16, wherein said plurality of rotor sensing slots are variably spaced in a repeating pattern around the outer periphery of said rotor.

19. The sensorless control electric machine drive of claim 18, wherein said repeating pattern comprises a sinusoidal repeating pattern.

20. The sensorless control electric machine drive of claim 17, wherein the depth of said plurality of rotor sensing slots is varied in a repeating pattern around said rotor.

21. The sensorless control electric machine drive of claim 17, wherein the width of said plurality of rotor sensing slots is varied in a repeating pattern around said rotor.

22. The sensorless control electric machine drive of claim 17, wherein the depth of said plurality of rotor sensing slots is varied in a sinusoidal repeating pattern around said rotor.

23. The sensorless control electric machine drive of claim 17, wherein the width of said plurality of rotor sensing slots is varied in a sinusoidal repeating pattern around said rotor.

24. The sensorless control electric machine drive of claim 16, wherein the sensorless control electric machine drive is selected from the group consisting of a sensorless control induction

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